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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,770	06/01/2001	Subhash Narang	A-70610/RFT/TJH	1227

7590

02/09/2004

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EXAMINER

RUTHKOSKY, MARK

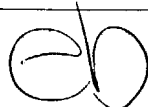
ART UNIT	PAPER NUMBER
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1745

AS

DATE MAILED: 02/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/872,770	Applicant(s) NARANG ET AL. 	
	Examiner Mark Ruthkosky	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-34 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

RESTRICTION

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-12 and 26-27, drawn to a polymer membrane, classified in class 204, subclass 522.
- II. Claims 13, 14 and 1, drawn to a membrane electrode assembly, classified in class 429, subclass 206.
- III. Claims 15-16, 19 and 1, drawn to an electrochemical device such as a battery, classified in class 429, subclass 122.
- IV. Claims 17-18, 13-14, 20 and 1, drawn to a fuel cell, classified in class 429, subclass 41.
- V. Claims 21 and 1, drawn to a method of forming the polymer membrane, classified in class 521, subclass 27.
- VI. Claims 22, 23 and 1, drawn to a method of forming a membrane electrode assembly, classified in class 502, subclass 101.
- VII. Claims 24-25, drawn to a method of making a polymer membrane, classified in class 521, subclass 27.
- VIII. Claims 28, 29 and 26, drawn to a membrane electrode assembly, classified in class 429, subclass 206.
- IX. Claims 28, 29 and 27, drawn to a membrane electrode assembly, classified in class 429, subclass 206.

Art Unit: 1745

- X. Claims 30, 31 and 26, drawn to an electrochemical device, classified in class 429, subclass 122.
- XI. Claims 30, 31 and 27, drawn to an electrochemical device, classified in class 429, subclass 122.
- XII. Claims 32, 34 and 26, drawn to a fuel cell, classified in class 429, subclass 41.
- XIII. Claims 32, 34 and 27, drawn to a fuel cell, classified in class 429, subclass 41.
- XIV. Claims 33, 34 and 28, drawn to a fuel cell, classified in class 429, subclass 41.
- XV. Claims 33, 34 and 29, drawn to a fuel cell, classified in class 429, subclass 41.

The inventions are distinct, each from the other because of the following reasons:

Claims 1-12 are to a polymer membrane. Claims 13-14 are to a membrane electrode assembly comprising the polymer membrane of claim 1. Claims 15-16 are to an electrochemical device comprising the polymer membrane of claim 1. Claim 17 is to a fuel cell comprising the polymer membrane of claim 1. Claim 21 is to a method of forming the polymer membrane of claim 1. Claims 24-25 are to a method of forming a polymer membrane. Claim 26 is to a membrane made by the method of claim 24. Claim 27 is to a polymer membrane.

Invention I, as compared to inventions II-IV, is related as a combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the

Art Unit: 1745

particulars of the subcombination as claimed because claims 2-12 include elements of the combination that do not require the particulars of the subcombination as claimed for patentability. The subcombination has separate utility such as a membrane.

Inventions II-IV are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a membrane electrode assembly and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. The MEA is claimed to be used in both fuel cells and batteries which as distinct inventions. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Inventions I and V are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product can be made by another and materially different process such as combining the materials at an elevated temperature or in a specific solvent mixture.

Art Unit: 1745

Inventions V and VI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are a method of making a polymer membrane and a method of making a membrane electrode assembly. The methods involve different method steps forming different products.

Inventions VII and VIII are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product, a polymer membrane may be made by another method such as casting a polymer solution onto a substrate and drying the solution to form a membrane.

Inventions IX through XV are related as combination and subcombination or subcombinations useable together. Claims 26 and 27 are each to a polymer membrane with different claimed features. Claim 26 is a membrane prepared by a specific method. Claim 27 is a membrane with specific subunits comprising an elastomeric material. Thus, the membranes, electrochemical devices and fuel cells claimed are to different inventions. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because different polymer membranes may be used as evidenced by claims 26 and 27. The subcombination has separate utility such as a polymer membrane.

Art Unit: 1745

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for the various groups not required for each group, restriction for examination purposes as indicated is proper.

Due to the complexity of the restriction, no telephone call was made to request an oral election to the above restriction requirement. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 571-272-1291. The


Art Unit: 1745

examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:00.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Mark Ruthkosky

Primary Patent Examiner

Art Unit 1745



2/2/04